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APPLICATION

Type I Progress Report

for the period

15 June 1972 - 15 August 1972

Application of ERTS and EREP Images to Geologic Investigations of the Basin and Range - Colorado Plateau Boundary in Northwestern and North-Central Arizona, #308.

GSFC No. PR522.

Problems:

A major road block to the investigation has been the fact that until 15 August we had not received FY73 funding. The money is now finally in house and we can begin our labors in earnest.

A secondary problem has to do with the MSS and RBV test tapes received in July. After the confirmation card had been mailed we noticed that all the tapes had been sent without internal packing sponges and the tapes had unwound themselves. All tapes were damaged to some extent by creasing.

Accomplishments and Plans:

At present we are working with the MSS test tapes in preparation for receipt of spacecraft data. We have received the LARS system tapes and are currently studying their conversion to the VICAR system here at JPL.

In the Arizona field areas, work has begun in each of the three areas in anticipation of receipt of both U-2 and ERTS images. A. Goetz and D. Elston made a reconnaissance flight over Area D in June in order to gain familiarity with the area and select sites for calibration with the portable field reflectance spectrometer.

I. Lucchitta has completed a reconnaissance of Area A. The area is rugged with only limited access and will provide an excellent verification of the advantages of ERTS images in geologic mapping of large unmapped and inaccessible areas.

During the next reporting period we expect to construct preliminary photogeologic maps from the ERTS images. This work will help identify the regions in which ground field work will be necessary. Field measurements will be made with the newly completed Portable Field Reflectance Spectrometer. Detailed image processing of one field area will be attempted in order to focus the techniques developed for other flight programs on the ERTS problems.

e, f, g, h, i, j, k. Not Applicable.

## Cost Statement:

So far the FY72 funds of \$5K have been expended. Anticipated spending in the current and following quarters is: FY73 - 52K, 50K, 42K, 46K; FY74 - 37K, 34K, 28K, 29K, respectively.

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